

NWS Daily Climatology Data: 1983 (SNF)

Summary:

Weather data were collected by the National Weather Service in International Falls, Minnesota. International Falls is about 80 miles from the SNF, but the weather data are representative of the area. Total solar insolation measurements were made at Fall Lake Dam in Winton, Minnesota, by Prof. Donald Baker of the Department of Soil Science at the University of Minnesota, St. Paul. Insolation values were measured using a Yellow Springs solar cell calibrated against an Eppley Pyranometer.

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1. Data Set Overview:

Data Set Identification:

NWS Daily Climatology Data: 1983 (SNF).

Data Set Introduction:

Weather data were collected by the National Weather Service in International Falls, Minnesota. International Falls is about 80 miles from the SNF, but the weather data are representative of the

area. Total solar insolation measurements were made at Fall Lake Dam in Winton, Minnesota, by Prof. Donald Baker of the Department of Soil Science at the University of Minnesota, St. Paul. Insolation values were measured using a Yellow Springs solar cell calibrated against an Eppley Pyranometer.

Objective/Purpose:

Not available.

Summary of Parameters:

Daily temperature (minimum, maximum, average), precipitation, insolation.

Discussion:

Daily weather data for the years 1972 through 1990 are stored in a collection of data sets with each data set containing one year's data, plus a data set including the entire data collection. The data set names are in the form:

- NWS Daily Climatology Data: 1972 (SNF)
- NWS Daily Climatology Data: 1973 (SNF)
- NWS Daily Climatology Data: 1974 (SNF)
- NWS Daily Climatology Data: 1975 (SNF)
- NWS Daily Climatology Data: 1976 (SNF)
- NWS Daily Climatology Data: 1977 (SNF)
- NWS Daily Climatology Data: 1978 (SNF)
- NWS Daily Climatology Data: 1979 (SNF)
- NWS Daily Climatology Data: 1980 (SNF)
- NWS Daily Climatology Data: 1981 (SNF)
- NWS Daily Climatology Data: 1982 (SNF)
- NWS Daily Climatology Data: 1983 (SNF)
- NWS Daily Climatology Data: 1984 (SNF)
- NWS Daily Climatology Data: 1985 (SNF)
- NWS Daily Climatology Data: 1986 (SNF)
- NWS Daily Climatology Data: 1987 (SNF)
- NWS Daily Climatology Data: 1988 (SNF)
- NWS Daily Climatology Data: 1989 (SNF)
- NWS Daily Climatology Data: 1990 (SNF)
- and
- NWS Daily Climatology Data: 1972-1990 (the entire data collection).

Related Data Sets:

Not available.

2. Investigator(s):

Investigator(s) Name and Title:

Dr. Forrest G. Hall
NASA Goddard Space Flight Center

Dr. K. Fred Huemmrich
NASA Goddard Space Flight Center

Dr. Donald E. Strebel
Versar, Inc.

Dr. Scott J. Goetz
University of Maryland

Ms. Jamie E. Nickeson
NASA Goddard Space Flight Center

Ms. K. D. Woods
NASA Goddard Space Flight Center

Dr. Celeste Jarvis
NASA Headquarters

Title of Investigation:

Biophysical, Morphological, Canopy Optical Property, and Productivity Data on the Superior National Forest.

Contact Information:

Dr. Forrest G. Hall
NASA Goddard Space Flight Center
Fax: +1 (301) 614-6659
Telephone: +1 (301) 614-6695
E-mail: fghall@ltpmail.gsfc.nasa.gov

3. Theory of Measurements:

Not available.

4. Equipment:

Sensor/Instrument Description:

Collection Environment:

Ground-based.

Source/Platform:

Meteorological Station.

Source/Platform Mission Objectives:

Not available.

Key Variables:

Daily temperature (minimum, maximum, average), precipitation, insolation.

Principles of Operation:

Not available.

Sensor/Instrument Measurement Geometry:

Not available.

Manufacturer of Sensor/Instrument:

Not available.

Calibration:

Not available.

5. Data Acquisition Methods:

Not available.

6. Observations:

Data/Field Notes:

Not available.

7. Data Description:

Spatial Characteristics:

Weather data were collected by the National Weather Service in International Falls, Minnesota. International Falls is about 80 miles from the SNF, but the weather data are representative of the area.

Temporal Characteristics:

This data set contains meteorological data collected during 1983.

Data Characteristics:

Variable Name/ Description	Long Name	SAS Type	Generic Type
1 location "Location of Recording Station"	LOCATION	\$ 24	CHAR(20)
2 obs_date "The date of the observations, in the format (DD-MMM-YY) (eg. 01-jan-90)"	OBS_DATE	\$ 12	DATE
3 temp_min "Daily minimum temperature (F)"	MIN_TEMP	8	NUMBER(6,1)
4 temp_max "Daily maximum temperature (F)"	MAX_TEMP	8	NUMBER(6,1)
5 temp_avg "Daily average temperature (F)"	AVG_TEMP	8	NUMBER(6,1)
6 precip "Precipitation: total daily water equivalent (inches)"	PRECIP	8	NUMBER(7,2)
7 gdd "Growing (heating) degree days"	GDD	8	NUMBER(5,0)

accumulated for that day
 calculated from the sine wave
 method. A base value of 40 degrees
 (F) was used."

```
8  t_solar      TOTAL_SOLAR          8          NUMBER(5,1)
"Total daily solar irradiance
(Langleys) recorded by a Yellow-
Springs solar cell at Winton,
Minnesota"
```

```
9  rel_hum      REL_HUM              8          NUMBER(6,1)
"Relative humidity (%) as measured
daily at 1400 local time"
```

Sample Data Record:

location	obs_date	temp_min	temp_max	temp_avg	precip	gdd
t_solar	rel_hum					
"Fall Lake Dam, MN"	"01-JAN-83"	.	.	.	.	.
73.3	.					
"Fall Lake Dam, MN"	"02-JAN-83"	.	.	.	.	.
158.6	.					
"Fall Lake Dam, MN"	"03-JAN-83"	.	.	.	.	.
77.5	.					
"Fall Lake Dam, MN"	"04-JAN-83"	.	.	.	.	.
25.9	.					
"Fall Lake Dam, MN"	"05-JAN-83"	.	.	.	.	.
80.8	.					
"Fall Lake Dam, MN"	"06-JAN-83"	.	.	.	.	.
9.5	.					
"Fall Lake Dam, MN"	"07-JAN-83"	.	.	.	.	.
15.6	.					
"Fall Lake Dam, MN"	"08-JAN-83"	.	.	.	.	.
27.3	.					
"Fall Lake Dam, MN"	"09-JAN-83"	.	.	.	.	.
19.1	.					
"Fall Lake Dam, MN"	"10-JAN-83"	.	.	.	.	.
19.2	.					

Footnote:

For presentation in this document, some padding blanks may have been eliminated between columns in the Sample Data Record. Due to the many fields in this data file, these columns will wrap while viewing. The actual data files, however, are column delimited with an adequate record length to prevent wrapping. See the [Data Format Section](#) for conventions used for missing data values in the data file.

8. Data Organization:

Data are sorted by observation date (obs_date) and location (location). Key fields in each record are location and obs_date.

Data Granularity:

Each data set consists of a single ASCII file containing climatology data for each location for an entire year, except in the case of "NWS Daily Climatology Data: 1972-1990" which contains the climatology data for the entire period 1972-1990.

A general description of data granularity as it applies to the IMS appears in the <http://daac.ornl.gov>.

Data Center Status/Plans:

The Superior National Forest Data are available from the ORNL DAAC. Please contact the ORNL DAAC User Services Office for the most current information about these data.

16. Output Products and Availability:

Available via FTP or on CD-ROM.

17. References:

Not available.

Archive/DBMS Usage Documentation.

Contact the ORNL DAAC, Oak Ridge, Tennessee (see the [Data Center Identification Section](#)).

18. Glossary of Terms:

A general glossary is located at [EOSDIS Glossary](#).

19. List of Acronyms:

NWS National Weather Service URL Uniform Resource Locator

A general list of acronyms is available at <http://cdiac.ornl.gov/pns/acronyms.html>.

20. Document Information:

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Document Curator:

webmaster@daac.ornl.gov

Document Author:

[DAAC Staff](#)

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